

## REMARKS

Claims 1-2, 6-9, and 11-16 are pending. Claims 3-5, 10, 14, and 17-25 were previously cancelled without prejudice or disclaimer. Claims 1, 9, and 16 have been amended. No new matter has been added. Support for the claim amendments may be found in at least paragraphs 0033-0039 of the application. Applicants respectfully submit that the claims are in condition for allowance.

### I. 35 U.S.C. §112

#### Claims 1-2, 6-9, and 11-16 are Allowable

The Office has rejected claims 1-2, 6-9, and 11-16, under 35 U.S.C. §112, first paragraph. Applicants have amended claims 1, 9, and 16 accordingly. Applicants respectfully request withdrawal of the rejections of claims 1-2, 6-9, and 11-16 under 35 U.S.C. §112, first paragraph.

### II. 35 U.S.C. § 103

#### Claims 1, 2, 6-9, and 11-16 are Allowable

The Office has rejected claims 1, 2, 6-9, and 11-16, under 35 U.S.C. §103, as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of U.S. Patent Application No. 2006/0212919 ("Tsang"). Applicants respectfully traverse the rejections.

#### Claims 1, 2 and 6-8

The cited portions of AAPA and Tsang do not disclose or suggest the specific combination of claim 1. For example, the cited portions of AAPA and Tsang fail to disclose or suggest inquiring, from a remote location, a status of an upper-layer communication indicator indicating a point-to-point protocol (PPP) over Ethernet (PPPoE) communication status, the upper-layer communication indicator displayed at a modem, where the status is observable by a visual inspection of the upper-layer communication indicator by an end-user, as in claim 1. AAPA is silent as to indicating a PPPoE communication status.

Tsang describes a status indicator that provides a status indication of a cable modem status each time a discovery packet is transmitted to a main board. See Tsang, paragraph 0031. In Tsang, the main board may be apprised of a status of the cable modem. See Tsang, paragraph 0031. This provides a set-top box device with a cost effective mechanism to display status information, including the status of the modem, without need for a separate modem status indicator. Thus, in Tsang, a set-top box device rather than the modem itself displays the status of the modem. In Tsang, the status indicator is transmitted based on information in a Universal Datagram Protocol (UDP) header. See Tsang paragraph 0031. The Office asserts, at page 6 of the Office Action, that it is well known in the art that UDP is a well-known transport layer protocol, which is a layer 4 protocol. Thus, in Tsang, the set-top box device displays a status of UDP, a layer 4 protocol, rather than PPPoE, a layer 3 protocol. Therefore, the cited portions of Tsang fail to disclose or suggest inquiring, from a remote location, a status of an upper-layer communication indicator indicating a PPPoE communication status, the upper-layer communication indicator displayed at a modem, where the status is observable by a visual inspection of the upper-layer communication indicator by an end-user, as in claim 1. Therefore, the cited portions of AAPA and Tsang fail to disclose or suggest at least one element of claim 1. Hence, claim 1 is allowable. Claims 2 and 6-8 are allowable, at least by virtue of depending from an allowable claim.

In addition, the cited portions of AAPA and Tsang fail to disclose or suggest performing a first set of actions when a status indicates that a PPP session has been established, the first set of actions including troubleshooting actions, and performing a second set of actions when the status indicates that a PPP session has not been established, the second set of actions including corrective actions, as in claim 1. As explained above, AAPA is silent as to indicating whether a PPP session has been established. As explained above, Tsang describes displaying a status of a modem based on a UDP (layer 4) header rather than the status of a PPP (layer 3) session. For at least this additional reason, claims 1-2 and 6-8 are allowable.

#### Claims 9, and 11-15

The cited portions of AAPA and Tsang do not disclose or suggest the specific combination of claim 9. For example, the cited portions of AAPA and Tsang fail to disclose or suggest a first status indicator configured for visual inspection by an end-user to communicate a

PPPoE communication status between the computer and the service provider device, as in claim 9. AAPA is silent as to indicating a PPPoE communication status.

As explained above, in Tsang, the set-top box device displays a status of UDP, a layer 4 protocol, rather than PPPoE, a layer 3 protocol. Therefore, the cited portions of Tsang fail to disclose or suggest a first status indicator configured for visual inspection by an end-user to communicate a PPPoE communication status between the computer and the service provider device, as in claim 9. Therefore, the cited portions of AAPA and Tsang fail to disclose or suggest at least one element of claim 9. Hence, claim 9 is allowable. Claims 11-15 are allowable, at least by virtue of depending from an allowable claim.

In addition, the cited portions of AAPA and Tsang fail to disclose or suggest a first status indicator configured to trigger a first set of actions including troubleshooting actions by indicating that a PPP session has been established and to trigger a second set of actions including corrective actions by indicating that a PPP session has not been established, as in claim 9. As explained above, AAPA is silent as to indicating whether a PPP session has been established. As explained above, Tsang describes displaying a status of a modem based on a UDP (layer 4) header rather than the status of a PPP (layer 3) session, as in claim 9. For at least this additional reason, claims 9 and 11-15 are allowable.

#### Claim 16

The cited portions of AAPA and Tsang do not disclose or suggest the specific combination of claim 16. For example, the cited portions of AAPA and Tsang fail to disclose or suggest inquiring, from a remote service terminal, a status of a visual upper-layer communication indicator, the visual upper-layer communication indicator displayed at a customer premise equipment (CPE) device and associated with a digital subscriber line (DSL) terminating at the DSL connection of the end-user computer at the local site, where the status is observable by a visual inspection of the visual upper-layer communication indicator by an end-user, and where the visual upper-layer communication indicator indicates a PPPoE communication status, as in claim 16. AAPA is silent as to indicating a PPPoE communication status.

As explained above, in Tsang, the set-top box device displays a status of UDP, a layer 4 protocol, rather than PPPoE, a layer 3 protocol. Therefore, the cited portions of Tsang fail to

disclose or suggest inquiring, from a remote service terminal, a status of a visual upper-layer communication indicator, the visual upper-layer communication indicator displayed at a customer premise equipment (CPE) device and associated with a digital subscriber line (DSL) terminating at the DSL connection of the end-user computer at the local site, where the status is observable by a visual inspection of the visual upper-layer communication indicator by an end-user, and where the visual upper-layer communication indicator indicates a PPPoE communication status, as in claim 16. Therefore, the cited portions of AAPA and Tsang fail to disclose or suggest at least one element of claim 16. Hence, claim 16 is allowable.

In addition, the cited portions of AAPA and Tsang fail to disclose or suggest performing a first set of maintenance actions when a status indicates that a PPP session has been established, the first set of maintenance actions including troubleshooting actions, and performing a second set of maintenance actions when the status indicates that a PPP session has not been established, the second set of maintenance actions including corrective actions, as in claim 16. As explained above, AAPA is silent as to indicating whether a PPP session has been established. As explained above, Tsang describes displaying a status of a modem based on a UDP (layer 4) header rather than the status of a PPP (layer 3) session. For at least this additional reason, claim 16 is allowable.

### CONCLUSION

Applicants respectfully request reconsideration and withdrawal of each of the objections and rejections, as well as an indication of the allowability of each of the pending claims.

Any changes to the claims in this response that have not been specifically noted to overcome a rejection based upon the cited references, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

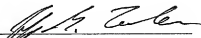
The Examiner is invited to contact the undersigned attorney at the telephone number listed below if such a call would in any way facilitate allowance of this application.

The Commissioner is hereby authorized to charge any fees, which may be required, or credit any overpayment, to Deposit Account Number 50-2469.

Respectfully submitted,

Date

9-3-2010

  
Jeffrey G. Toler, Reg. No. 38,342  
Attorney for Applicants  
Toler Law Group, Intellectual Properties  
8500 Bluffstone Cove, Suite A201  
Austin, Texas 78759  
(512) 327-5515 (phone)  
(512) 327-5575 (fax)